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# MULTIMEDIA UNIVERSITY

## FINAL EXAMINATION

TRIMESTER 2, 2016 / 2017

**TEP 1241**  
**ETHICS AND PROFESSIONAL CONDUCTS**  
( All Sections / Groups )

3 MARCH 2017  
9.00 a.m. – 11.00 a.m.  
( 2 hours )

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### INSTRUCTIONS TO STUDENT

1. This question paper consists of **SIX** pages only excluding the cover page.
2. **Section A:** Answer **ALL TWENTY** multiple choice questions.  
**Section B:** Answer **ALL THREE** structured questions.
3. Please shade all your answers for **Section A** in the **OMR** answer sheet provided.  
Please write all your answers for **Section B** in the answer booklet provided.
4. Distribution of marks for each section/question is given.

**SECTION A: MULTIPLE CHOICE QUESTIONS (MCQ) [20 MARKS]****Instruction:** Answer **ALL TWENTY** questions.

1. According to Brey (2004), the standard methodology used by philosophers in applied ethics research consists of three stages. Which of the following statements is **TRUE** regarding those three stages?
  - A. Stage 1 involves identifying a particular controversial belief as a social problem.
  - B. Stage 2 involves describing and analyzing a problem by clarifying concepts and examining factual data associated with that problem.
  - C. Stage 3 involves applying rules and regulations to reach an agreeable conclusion about the particular moral issue.
  - D. Stage 3 involves getting everyone to support the conclusion without condition.
2. There are three schemes for grounding moral principles. These three schemes are
  - A. religion, law and philosophy
  - B. religion, law and professional ethics
  - C. religion, law and moral-based ethics
  - D. religion, law and philosophical ethics
3. Which of the following statements are **TRUE**?
  - I *According to Gert, morality is a system that is rational and impartial*
  - II *The normative method is used by all philosophers to analyze moral theories*
  - III *Social utility is a principle that can be used to evaluate a social policy*
  - IV *Ethics is often defined as the study of morality*
  - V *Philosophers evaluate a claim by testing it against the rules of law and beliefs*
  - VI *In the legal system, stealing is wrong because it violates moral behaviour*
  - A. I, II & VI
  - B. I, III & IV
  - C. III, IV & V
  - D. II, V & VI
4. Which of the statements below regarding the ethical theory of deontology is **FALSE**?
  - A. The categorical imperative principle is associated with rule deontology.
  - B. In act deontology, analyzing individual actions and situations is important.
  - C. This theory is often defended on grounds that humans are end-in-themselves.
  - D. This theory upholds the concept of duty or obligations humans have for themselves.
5. Which of the statements below regarding the structure of ethical theories is **FALSE**?
  - A. To be coherent, individual elements of the theory must fit together.
  - B. For the theory to be consistent, its component parts cannot contradict each other.
  - C. To be systematic, the theory must address individual symptoms peculiar to specific cases.
  - D. To be comprehensive, the theory must be able to apply broadly to a wide range of actions.
6. What is an important assumption made in cultural relativism? A system is regarded as moral simply because \_\_\_\_\_. (Choose the **BEST** answer).
  - A. a majority of people in the culture decides it is moral
  - B. most of the people in the culture pretends that it is moral
  - C. a large number of people in the culture regards it as morally acceptable
  - D. many of the people in the culture believes that the system is morally good

**Continued...**

7. Arguments are used in resolving disputes affecting the ethical aspects of cybertechnology. Which of the statements below is **FALSE** regarding arguments?

- Both sound and inductive arguments are considered strong arguments.
- An argument is invalid if the conclusion is not guaranteed by the premises.
- For a fallacious argument, there are multiple counterexamples that can be provided.
- Fallacies in arguments refer to the fact that a particular statement is false and in error.

8. According to Kevin Bowyer (2002) examples of safety-critical software systems and applications include all of the following **EXCEPT** \_\_\_\_\_.

- missile systems
- medical treatment systems
- food and sanitation systems
- mass transportation systems

9. The term “negligence” in the whistle-blowing context is best applied when one or more individuals in an organization \_\_\_\_\_ . (Choose the **BEST** answer).

- have failed to act
- have acted illegally or immorally
- have failed to reveal immoral acts
- have acted unfairly without justification

10. Which of the following is the view expressed by Michael McFarland on the criteria for “blowing the whistle” in the case of engineers?

- Responsibility for engineers should fall directly on individual engineers.
- Responsibility should be shouldered by engineers as members of society.
- The assumption that engineers have *prima facie* obligation to expect aid from others.
- Engineers should take responsibility by banding together when other sources of help are unavailable.

11. Which of the following statements regarding Moor’s theory of privacy is **FALSE**?

- Having a right to privacy is in the descriptive sense.
- A person’s privacy can be lost and not violated or lost and violated as well.
- The term “situation” can mean “storage or access of information” in a computer.
- A person has privacy in a particular situation if he is protected from intrusion, interference and information access by others.

12. According to Peter Neumann (2004), computer security can be a “double-edged sword”. What this means exactly is that computer security can be \_\_\_\_\_.

- used to secure the user’s privacy and destroy it at the same time
- used to ensure the user’s privacy both ways, internally and externally
- used to provide the user’s privacy and all the other users’ privacy as well
- used to protect the user’s privacy and undermine the user’s freedom of access

13. Which of the statements below regarding cybercrimes and cyber-related crimes is **TRUE**?

- Organized crime is considered a cyber-related crime.
- Cybervandalism is a cyberexacerbated crime as it is made worse by cybertechnology.
- Identity theft is not a genuine cybercrime because it does not involve cybertechnology.
- None of the above.

14. In matters of property rights, the utilitarian theory maintains all of the following **EXCEPT** \_\_\_\_\_.

- property rights are a conventional right provided by the government
- property rights are not considered natural rights but are instead artificial rights
- property rights are rights granted to keep one's ideas secret from everyone else
- All of the above

15. Spinello (2000) defines defamation as communication that \_\_\_\_\_ in the eyes of the community.

- harms the reputation of another and lowers the person's self-esteem
- destroys the image of another and hurts the person's self-confidence
- hurts the noble character of another and reduces the person's self-respect
- tarnishes the good name of another and minimizes the person's self-image

16. In understanding the issue of gender and cybertechnology, there are three distinct kinds of issues to consider affecting gender. These three distinct kinds of issues include all of the following **EXCEPT** \_\_\_\_\_.

- access issues
- working rights and pay inequality
- gender bias in video-game software
- theoretical frameworks for understanding gender issues

17. The term "digital divide" is used to describe the disparity between those who have \_\_\_\_\_ and those who do not. (Choose the **BEST** answer).

- access to cybertechnology
- experienced digital technology
- used cybertechnology in their daily lives
- the opportunity to take part in the digital revolution

18. Which of the features below refers to Brey's definition of virtual-reality technology?

- Reactivity
- A third-person perspective
- Use of two-dimensional graphics
- None of the above features

19. Three kinds of social and ethical concerns in bioinformatics research and development include all of the following **EXCEPT** \_\_\_\_\_.

- privacy and confidentiality
- data regulation and data storage
- autonomy and informed consent
- information ownership and property rights

20. Which of the following statements regarding emerging and converging technologies is **FALSE**?

- Pervasive computing refers to computer technology that is invisible and unseen.
- Biotechnology is a non-cybertechnology that is converging with cybertechnology.
- Ubiquitous communication can include flexible and omnipresent communication between interlinked computer devices.
- All of the statements above are **FALSE**.

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**SECTION B: STRUCTURED QUESTIONS [30 MARKS]**

**Instruction:** Answer **ALL THREE** questions.

**QUESTION 1 [10 marks]**

(a) Explain the difference between “professional ethics” and “philosophical ethics” in the context of “Computer Ethics”. (1 mark)

(b) In the article *Computer Ethics* (1985), Johnson made the following conclusion:

*“Computer ethical issues are new species of generic moral problems. Ethical issues are always about human beings and human actions. Computer technology, like other technologies, changes the instrumentation of human action and in so doing makes it possible for human beings to do what they could not do before, as well as to do in new ways what they did before. These changes mean that human beings face ethical questions they have never faced before but the new questions do not take us into utterly unique moral territory.”*

Based on the passage provided above, explain the viewpoint that Johnson had expressed in the above conclusion. (2 marks)

(c) At the center of Kant’s deontological theory lies what he had termed the categorical imperative. An example of a categorical imperative is “you ought to look after your parents”. Based on this information, answer the following:

- Explain in your own words, what the categorical imperative is. (1 mark)
- A principle of the categorical imperative is that we should treat people as “ends-in-themselves”, never as “means to ends”. Explain the meaning of “ends-in-themselves” and “means to ends” in regards to treating people. (1½ mark)
- What is the problem that may arise in the application of “rule deontology”? Explain the problem and provide a relevant example. (1½ mark)

(d) Consider the following hypothetical scenario in the context of professional ethics:

Suppose you are a member of a team of IT professionals working on a computer-controlled car crash prevention system for a local car manufacturing company. From your work experience and the time you had spent working on the system, you suspect that the system has a flaw that could endanger its users in the event of a car crash. The project manager does not seem concerned and expects to announce completion of the project soon. You feel that you have an *ethical obligation* to do something as this is a safety issue whereby people’s lives could be at stake.

Provide the action that you could take in this hypothetical scenario. In addition, highlight the corresponding moral dilemma that you could face. (3 marks)

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**QUESTION 2 [10 marks]**

(a) Privacy is a notion that is difficult to define. Often, the “right to privacy” is defined as the right of individuals to control access or interference by others into their private affairs. Based on this information, answer the following:

- (i) Privacy is often held to be important. Explain why this is so. (½ mark)
- (ii) In what way does security in public places violate our personal privacy? (½ mark)
- (iii) It is argued that privacy is a “necessary condition for autonomy”. Elaborate on the phrase provided above with emphasis on the term “autonomy”. (1 mark)
- (iv) An important principle used in privacy protection is the principle of “informed consent”. What does this principle mean? (1 mark)

(b) Information security is the protection of data that resides on disk drives in computer systems or is transmitted between systems. Information security is customarily defined as being concerned with the protection of three aspects of data, namely the “confidentiality of data”, the “integrity of data” and the “availability of data”. Based on the information provided above, explain the following:

- (i) How does the loss of “confidentiality of data” violate users’ *privacy rights* and cause them harm? Explain and provide a real life example. (1½ mark)
- (ii) How does the loss of “availability of data” violate users’ *freedom rights* such as the right to *free speech*? Explain. (1½ mark)

(c) It is possible to differentiate between a genuine cybercrime and cyber-related crime. When it comes to determining if a crime is truly a computer crime, the problem of criteria arises. Based on this information, answer the following:

- (i) Explain clearly what a genuine cybercrime should be and provide an example of a genuine cybercrime. (1 mark)
- (ii) Identity theft does not require cybertechnology but have currently increased dramatically because of computers and the Internet. Describe what identity theft is and use the ethical theory of deontology to show that identity theft is morally wrong. (1 mark)

(d) There are three distinct types of traditional theories regarding property rights. They are the “labor theory”, the “utilitarian theory” and the “personality theory”. Select *any* one of these three theories and answer the following:

- (i) Explain the main point of the theory that you have selected. (1 mark)
- (ii) Provide a criticism of the theory that you have selected. (1 mark)

**Continued...**

**QUESTION 3 [10 marks]**

(a) The following is a selected excerpt from an article by Samuelson (2003) regarding DRM (Digital Rights Management):

*"DRM is sometimes said to be a mechanism for enforcing copyrights. While DRM systems can certainly prevent illegal copying and public distribution of copyrighted works, they can do far more; they can as easily prevent the copying and distribution of public-domain works as copyrighted works.... DRM systems can thwart the exercise of fair use rights and other copyright privileges. DRM can be used to compel users to view content they would prefer to avoid..."*

Based on this selected excerpt as well as the many contentious issues surrounding the use of DRM, answer the following:

(i) From a music company's point of view (a music company that actively uses DRM technology to enforce its copyrights), the use of DRM is deemed justifiable. What would be the "right" justification that such a company could employ to defend the use of DRM? (1 mark)

(ii) If the consumers' position on this issue is that the use of DRM is not morally permissible (allowable/acceptable), explain why this could be the case. Use the theory of utilitarianism to support the consumers' position. (3 marks)

(b) The term "digital divide" is used to describe the disparity between those who have access to Internet technology and those who do not. Answer the following:

(i) Explain why this "digital divide" can be regarded as an ethical issue. (1 mark)

(ii) If Ross's theory of "act deontology" is applied in this issue, explain why we would be obligated to help bridge the "digital divide". (1 mark)

(c) An online community is defined as a group of people with common interests who use the Internet to communicate, work together and pursue their interests over time. Provide *any* two positive benefits and two negative effects of online communities. (2 marks)

(d) Brey (2006) in his article "Freedom and Privacy in Ambient Intelligence" regarded Ambient Intelligence (AmI) as "*a new paradigm in information technology that envisions a future society in which people will live and work in environments that recognize and respond to them in intelligent ways*". But, Brey wrote that "*one of the fundamental ethical questions regarding Ambient Intelligence is whether it is more likely to enhance human autonomy and freedom, or diminish it*". Brey gave examples in which a loss of control can occur. Based on this, answer the following:

(i) A type of a "loss of control" occurs when a smart object in AmI does not just represent the needs of the user but also "parties other than the user". How does this happen? Elaborate with an example. (1 mark)

(ii) What is the concern that is raised by AmI with regards to "personal privacy"? (1 mark)